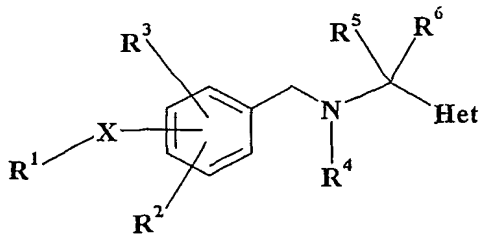
CLAIMS

1. Compounds of general formula I:



I

wherein

X is oxygen or sulphur or a NR^7 group;

R^1 is C_3-C_8 alkyl, or C_1-C_8 alkyl substituted by phenoxy or phenyl, both phenoxy or phenyl being optionally substituted by one or more fluoro, chloro, trifluoromethyl, C_1-C_6 alkyl, hydroxyl, C_1-C_6 alkoxy;

R^2, R^3 are independently hydrogen, C_1-C_6 alkyl, halogen, trifluoromethyl, hydroxy or C_1-C_6 alkoxy;

R^4 is hydrogen, C_1-C_8 alkyl;

R^5, R^6 are independently hydrogen, C_1-C_3 alkyl, optionally substituted by hydroxy or phenyl;

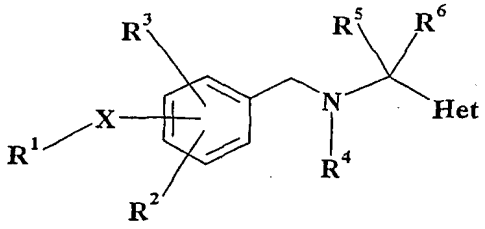
R^7 is hydrogen or straight or branched C_1-C_3 alkyl;

Het is a five to seven membered, saturated or unsaturated heteromonocyclic or an eight to ten membered, saturated or unsaturated heterobicyclic group, containing one or more heteroatoms chosen independently from nitrogen, oxygen and sulphur, said mono- or bicyclic groups being optionally substituted by C_1-C_6alkyl, halogen, hydroxyl or C_1-C_6 alkoxy;

and the pharmaceutically acceptable salts thereof, with the proviso that:

- Het cannot be indole, benzo[b]furan, benzo[b]thiophen, chroman, when R^5 and R^6 are both hydrogen, or 2-pyridyl;
- when R^1 is unsubstituted or substituted benzyl, and R^2 and R^3 are hydrogen, halogen or alkoxy, R^4 is other than hydrogen;
- when R^1 is propyl or butyl, R^2, R^3, R^5 and R^6 are hydrogen and R^4 is hydrogen, methyl or ethyl, Het cannot be 1,4-benzodioxan;
- when X- R^1 is a para butyloxy group and R^2, R^3, R^4, R^5 and R^6 are hydrogen, Het cannot be 2-thiophenyl, or 4-(2,2'-dimethyl)-pyranyl;
- when X- R^1 is an ortho heptyloxy or octyloxy group and R^2, R^3, R^4, R^5 and R^6 are hydrogen, Het cannot be 2-furyl;
- when X- R^1 is an ortho O-$(CH_2)_m$-p-CF_3-phenyl group, where m is an integer from 1 to 3, and R^2, R^3, R^5 and R^6 are hydrogen, Het cannot be pyridyl.

2. The use of the compounds of formula **I**



I

wherein

R^1 is C_3-C_8 alkyl, or C_1-C_8 alkyl substituted by phenoxy or phenyl, both phenoxy or phenyl being optionally substituted by one or more fluoro, chloro, trifluoromethyl, C_1-C_6 alkyl, hydroxyl, C_1-C_6 alkoxy;

R^2, R^3 are independently hydrogen, C_1-C_6 alkyl, halogen, trifluoromethyl, hydroxy or C_1-C_6 alkoxy;

R^4 is hydrogen, C_1-C_8 alkyl;

R^5, R^6 are independently hydrogen, C_1-C_3 alkyl, optionally substituted

by hydroxy or phenyl;

R^7 is hydrogen or straight or branched C_1-C_3 alkyl;

X is oxygen or sulphur or a NR^7 group;

Het is a five to seven membered, saturated or unsaturated heteromonocyclic or an eight to ten membered, saturated or unsaturated heterobicyclic group, containing one or more heteroatoms chosen independently from nitrogen, oxygen and sulphur, said mono- or bicyclic groups being optionally substituted by C_1-C_6alkyl, halogen, hydroxyl or C_1-C_6 alkoxy;

and the pharmaceutically acceptable salts thereof, with the proviso that:

- Het cannot be an indole, chroman when R^5 and R^6 are both hydrogen;
- when X- R^1 is an ortho O-$(CH_2)_m$-p-CF_3-phenyl group, where m is an integer from 1 to 3, and R^2, R^3, R^5 and R^6 are hydrogen, Het cannot be pyridyl

and the pharmaceutically acceptable salts or prodrug thereof, for the preparation of a medicament having sodium and/or calcium channel modulating activity and/or selective MAO-B inhibiting activity and therefore useful in preventing, alleviating and curing a wide range of pathologies, including, but not limited to, neurological, psychiatric, cardiovascular, inflammatory, ophthalmic, urologic, metabolic and gastrointestinal diseases.

3. The use of compounds according to claim 2 wherein R^1 is benzyl or C_5-C_8 alkyl, R^4, R^5, and R^6 are hydrogen or C_1-C_3 alkyl, X is oxygen and Het is furan, tetrahydrofuran, isoxazol, oxazol, thiophen, pyran, dioxane, unsubstituted or substituted by C_1-C_3 alkyl.

4. The use of a compound according to claim 2 selected from the group consisting of:

(4-Pentyloxy-benzyl)-(furan-2-ylmethyl)-amine;

(4-Heptyloxy-benzyl)-(furan-2-ylmethyl)-amine;

(R) (4-Pentyloxy-benzyl)-(tetrahydro-furan-2-ylmethyl)-amine;

(S) (4-Pentyloxy-benzyl)-(tetrahydro-furan-2-ylmethyl)-amine;

(R) (4-Heptyloxy-benzyl)-(tetrahydro-furan-2-ylmethyl)-amine;

(S) (4-Heptyloxy-benzyl)-(tetrahydro-furan-2-ylmethyl)-amine;

(R) (4-Pentyloxy-benzyl)-(tetrahydro-pyran-2-ylmethyl)-amine;

(S) (4-Pentyloxy-benzyl)-(tetrahydro-pyran-2-ylmethyl)-amine;

(R) (4-Heptyloxy-benzyl)-(tetrahydro-pyran-2-ylmethyl)-amine;

(S) (4-Heptyloxy-benzyl)-(tetrahydro-pyran-2-ylmethyl)-amine;

(4-Benzyloxy-benzyl)-(furan-2-ylmethyl)-amine;

(4-Benzyloxy-benzyl)-(5-methyl-furan-2-ylmethyl)-amine;

[4-(3-Fluoro-benzyloxy)-benzyl]-(furan-2-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(furan-2-ylmethyl)-amine;

[4-(3-Fluoro-benzyloxy)-benzyl]-(5-methyl-furan-2-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(5-methyl-furan-2-ylmethyl)-amine;

(R) (4-Benzyloxy-benzyl)-[1-(furan-2-yl)-1-ethyl]-amine;

(S) (4-Benzyloxy-benzyl)-[1-(furan-2-yl)-1-ethyl]-amine;

[4-(3-Fluoro-benzyloxy)-benzyl]-[1-(furan-2-yl)-1-ethyl]-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-[1-(furan-2-yl)-1-ethyl]-amine;

(R) (4-Benzyloxy-benzyl)-(tetrahydro-furan-2-ylmethyl)-amine;

(S) (4-Benzyloxy-benzyl)-(tetrahydro-furan-2-ylmethyl)-amine;

(R) [4-(3-Fluoro-benzyloxy)-benzyl]-(tetrahydro-furan-2-ylmethyl)-amine;

(S) [4-(3-Fluoro-benzyloxy)-benzyl]-(tetrahydro-furan-2-ylmethyl)-amine;

(R) [4-(3-Chloro-benzyloxy)-benzyl]-(tetrahydro-furan-2-ylmethyl)-amine;

(S) [4-(3-Chloro-benzyloxy)-benzyl]-(tetrahydro-furan-2-ylmethyl)-amine;

(R) [4-(3-Fluoro-benzyloxy)-benzyl]-(tetrahydro-pyran-2-ylmethyl)-amine;

(S) [4-(3-Fluoro-benzyloxy)-benzyl]-(tetrahydro-pyran-2-ylmethyl)-amine;

(R) [4-(3-Chloro-benzyloxy)-benzyl]-(tetrahydro-pyran-2-ylmethyl)-amine;

(S) [4-(3-Chloro-benzyloxy)-benzyl]-(tetrahydro-pyran-2-ylmethyl)-amine;

(4-Benzyloxy-benzyl)-(1,4-dioxan-2-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(pyrido-2-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(pyrido-3-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(pyrido-4-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(imidazol-2-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(1-methyl-imidazol-2-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(5-methyl-1H-triazol-2-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(4-methyl-thiazol-2-ylmethyl)-amine;

(4-Benzyloxy-benzyl)-(isoxazol-5-ylmethyl)-amine;

[4-(3-Fluoro-benzyloxy)-benzyl]-(isoxazol-5-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(isoxazol-5-ylmethyl)-amine;

(4-Benzyloxy-benzyl)-(3-methyl-isoxazol-5-ylmethyl)-amine;

[4-(3-Fluoro-benzyloxy)-benzyl]-(3-methyl-isoxazol-5-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(3-methyl-isoxazol-5-ylmethyl)-amine;

(4-Benzyloxy-benzyl)-(oxazol-2-ylmethyl)-amine;

[4-(3-Fluoro-benzyloxy)-benzyl]-(oxazol-2-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(oxazol-2-ylmethyl)-amine;

(4-Benzyloxy-benzyl)-(oxazol-5-ylmethyl)-amine;

[4-(3-Fluoro-benzyloxy)-benzyl]-(oxazol-5-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(oxazol-5-ylmethyl)-amine;

(4-Benzyloxy-benzyl)-(thiophen-2-ylmethyl)-amine;

[2-(3-Chloro-benzyloxy)-benzyl]-(thiophen-2-ylmethyl)-amine;

[2-(3-Fluoro-benzyloxy)-benzyl]-(thiophen-2-ylmethyl)-amine;

[3-(3-Chloro-benzyloxy)-benzyl]-(thiophen-2-ylmethyl)-amine;

[3-(3-Fluoro-benzyloxy)-benzyl]-(thiophen-2-ylmethyl)-amine;

[4-(3-Chloro-benzyloxy)-benzyl]-(thiophen-2-ylmethyl)-amine;

[4-(3-Fluoro-benzyloxy)-benzyl]-(thiophen-2-ylmethyl)-amine;

[2-(3-Fluoro-benzyloxy)-benzyl]-(benzo[b]furan-2-ylmethyl)-amine;

[3-(3-Fluoro-benzyloxy)-benzyl]-(benzo[b]furan-2-ylmethyl)-amine;

[4-(3-Fluoro-benzyloxy)-benzyl]-(benzo[b]furan-2-ylmethyl)-amine;

(R) [4-(3-Fluoro-benzyloxy)-benzyl]-(dihydro-benzo[b]furan-2-ylmethyl)-amine;

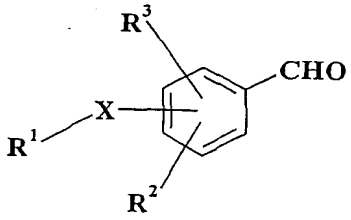
(S) [4-(3-Fluoro-benzyloxy)-benzyl]-(dihydro-benzo[b]furan-2-ylmethyl)-amine:

[4-(3-Chloro-benzyloxy)-benzyl]-(benzimidazol-2-ylmethyl)-amine;

either as a single isomer or as a mixture of isomers thereof, and the pharmaceutically acceptable salts thereof.

5. A process for the preparation of a compound of formula **I**, as defined in claim 1, or a pharmaceutically acceptable salt thereof, the process comprising:

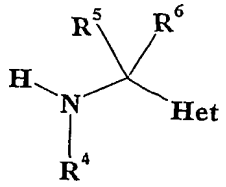
a) a reaction of a compounds of formula **II**



II

wherein R^1, R^2, R^3 and X are as defined in claim 1

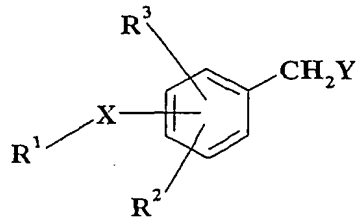
with compounds of formula **III**, in the presence of a reducing agent



III

wherein R^4, R^5, R^6 and Het are as defined in claim 1, in the presence of a reducing agent or

b) a reaction of a compound of formula **III** with a compound of formula **IV**,



IV

wherein R^1, R^2, R^3 and X are as defined above and Y is a halogen atom or a O-EWG group, where the EWG means an electron withdrawing group, able to transform the oxygen which they are linked to, in a good leaving group and, if desired, converting a compound of the invention into another compound of the invention and/or, if desired, converting a compound of the invention into a pharmaceutically acceptable salt and/or, if desired, converting a salt into a free compound.

6. A pharmaceutical composition containing, as an active principle, a compound of formula **I**, as defined in claim 1, or a pharmaceutically acceptable salt thereof in addition to a suitable carrier and/or diluent and optionally to other therapeutic agents.

7. A compound of formula **I**, as defined in claim 1, or a pharmaceutically acceptable salt thereof, for use as an active therapeutic substance.